A Predicative Analysis for PP Resultatives

State of the Art: Resultatives come in several variants: syntactically they are constructed with (a) either an adjectival phrase or (b) a prepositional phrase. Semantically, the resultative phrase may either express a property of some individual or its location. This property or location is an effect of some action expressed by the whole construction. Constructions with resultative phrases express causal relations and are therefore related to constructions with lexical causatives. AP and PP resultatives have been of special interest with regard to the syntax-semantics interface. They all have a causal meaning component and it is not clear whether this meaning component is a reflex of morphology or a syntactic unit (that is phonetically not visible) or a rule of construal, i.e., an extra rule of semantic composition. Furthermore, it is unsettled what the exact semantics of the causal meaning component might be. And, it is unclear, whether these constructions are subsumable under a raising/small clause analysis --- I subsume these two varieties under the term predicative analysis --- or a control analysis. It is even unclear whether all constructions fall into one natural class.

Some sentences, as exemplified in (1), seem to necessitate a predicative analysis. That the friends in (1a) are under the table is a target state of Arnim's drinking. But Arnim is not drinking the friends. That the hermit crab's shell is in the sand is a result of his digging. But the crab didn't dig the shell. In both cases, the direct object is not subcategorized by the verb. It rather seems that the verb is used intransitively (although it has an transitive variant) and the surface direct object is a logical subject of the resultative phrase.

(1)  
   a. Arnim drank his friends under the table.
   b. Der Krebs grub sein Haus in den Sand
      the crab dig-PAST its shell into the ACC sand

In other cases, it seems as if the verbal component and the resultative phrase share an argument. These constructions seem to favor a control analysis. Consider the example in (2).

The gardener pushed the cart into the garage.

The cart is pushed, and the cart is in the garage as a result of the pushing. The direct object is a logical object of the action and a logical subject of the resultative phrases.

(2)  The gardener pushed the cart into the garage.

Constructions with verbs of motion, unaccusatives in many languages, are considered to be control constructions, too. Arnim is marching and as a result of this action he ends up in the forest.

(3)  Arnim marched into the forest.

Two Problems: a) The control analysis for verbs of motion with PPs is problematic since it would predict that the sentence in (4) has a referential and a bound reading. The referential reading however is not available. Analogous observations can be made for the sentence in (2) above. This argument against the control analysis is new.

(4)  Only Arnim, marched PRO, into the forest.
    a. For no individual but Arnim it is the case that his marching causes him to be in the forest. (bound, ok)
    b. For no individual but Arnim it is the case that his marching causes Arnim to be in the forest. (referential, bad)

b) Narrow scope for quantifiers with respect to the result is predicted to be unavailable, contrary to the facts. In combination with the particle again, the sentence in (5) may mean that the gardener caused a cart to be in the garage by pushing. And it presupposes in the restitutive reading that there had been a cart in the garage before. This restitutive reading cannot be captured by the control analysis.

(5)  The gardener pushed a cart into the garage again.

In order to avoid these problems, I am proposing a pure raising analysis for all PP resultatives.
**The analysis:** In a first step, I will be discussing a primitive variant of the predicative analysis and the arguments raised against this analysis. In a second step, I will present Kratzer's syntax and semantics for adjectival resultative phrases. The result of the discussion of this analysis will be that none of the arguments against the primitive variant of a predicative analysis is tenable. Furthermore, the two problems for a control analysis above are avoided.

Kratzer proposed two predicates of causation, one that expresses indirect causation between two events, as in (6); and one that expresses direct causation. as in (7).

\[(\text{[CAUSE]}] = \lambda q. \lambda P. \lambda x. \lambda e. \exists [P(x)(e) \& q(s) \& \text{cause}(s)(e)]
\]

with cause = \(e* \lambda e. e \) is the minimal element of some causal chain with maximal element \(e\).

\[(\text{[CAUSING]}] = \lambda q. \lambda P. \lambda x. \lambda e. \exists [P(x)(e) \& q(s) \& \text{causing}(s)(e)]
\]

with causing = \(e* \lambda e. e \) is the sum of all the members of some causal chain with maximal element \(e*\).

As for (6), it is possible that an event intervenes between the cause and the effect. But this event must be causally related to cause and effect. In (7) on the other hand, every part of the causal chain leading to the resultant state is part of the causing event.

In a third step, I will investigate the possibilities of an application to prepositional resultatives and discuss a more finegrained syntactic (non-lexicalist) analysis. In PP resultatives, the suitable causal relation is CAUSING and not CAUSE. The sentence (2) is analysed as in (8).

\[(\text{8)} \]

a. [The gardener, [pushed the cart, \(\text{[pp} t,\text{into the garage}\]]]

b. LF: [The gardener pushed CAUSING [the cart in the garage]]

c. \(\lambda e. \exists [\text{pushing}(\text{the gardener}),] \& \text{in}(\text{the cart})(\text{the garage}) \& \text{causing}(s)(e)]

d. "...... the pushing by the gardener is a completed event of causing the cart being in the garage."

Note that the theme of the pushing event may be inferred: If the pushing activity is identical to a completed action of causing the cart to be in the garage, then the cart must be the pushed object. Whereas intransitives (and apparent transitives as in 8) show raising to object, unaccusatives are analysed as raising to subject constructions. The theme argument of the finite verb is existentially closed (à la Diesing).

\[(\text{8)} \]

a. [Arnim, \[marched \[\text{pp} t,\text{into the forest}\]]]

b. LF: [marched x CAUSING [Arnim in the forest]]

c. \(\lambda e. \exists [\text{marching}(x),] \& \text{in}(\text{Arnim})(\text{the forst}) \& \text{causing}(s)(e)]

d. "...... the marching of somebody is a completed event of causing Arnim to be in the forest."

The theme of the marching event is supposed to be inferred, as well: If the completed event of marching is a causing of Arnim to be in the forest, then the marching individual and Arnim must be identical.

The overall aim of this talk is to defend a predicative analysis not only for AP resultatives but also for PP resultatives. The causal meaning component is captured as a morphological affix.

**Literature**